		Pushing the E	nvelope
		2003 Mathen	
		Standard Course	e of Study
North Carolina Math	ematics		
Grade 5			
Activity/Lesson	State	Standards	
Physics and Math			Identify, describe, and analyze situations with
(pgs. 43-63)	NC	MA.5.5.03	constant or varying rates of change.
		Pushing the E	nvelope
		2003 Mathen	
		Standard Course	e of Study
North Carolina Math	ematics		
Grade 6			
Activity/Lesson	State	Standards	
Types of Engines (Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-
pgs. 11-23)	NC	MA.6.2.01	dimensional figures, using appropriate tools.
			Use graphs, tables, and symbols to model and
Physics and Math			solve problems involving rates of change and
(pgs. 43-63)	NC	MA.6.5.04	ratios.
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		Pushing the E	
		Standard Course	
North Carolina Math	omatics	Standard Course	e of Study
Grade 7	lematics		
Activity/Lesson	State	Standards	
Types of Engines (Otato	Otaridards	Develop fluency in the use of formulas to solve
pgs. 11-23)	NC	MA.7.5.04	problems.
pg/	1.10		Solve problems involving volume and surface
Chemistry (pgs. 25-			area of cylinders, prisms, and composite
41)	NC	MA.7.2.02	shapes.
Chemistry (pgs. 25-			Develop fluency in the use of formulas to solve
41)	NC	MA.7.5.04	problems.
Physics and Math			Develop and use ratios, proportions, and
(pgs. 43-63)	NC	MA.7.1.01	percents to solve problems.
			Use scaling and proportional reasoning to solve
Physics and Math			problems related to similar and congruent
(pgs. 43-63)	NC	MA.7.3.03	polygons.
			Identify, analyze, and create linear relations,
D			sequences, and functions using symbols,
Physics and Math		:	graphs, tables, diagrams, and written
(pgs. 43-63)	NC	MA.7.5.01	descriptions.
Physics and Math	NO	*** 7 - 0 4	Develop fluency in the use of formulas to solve
(pgs. 43-63)	NC	MA.7.5.04	problems.
Rocket Activity (pgs.	NC	NAA 7 5 04	Develop fluency in the use of formulas to solve
69-75)	NC	MA.7.5.04	problems.
		Pushing the E	nvelope
		2003 Mathen	
		Standard Course	e of Study
North Carolina Math	ematics		

State	Standards	
		Determine the effect on perimeter, area or
		volume when one or more dimensions of two-
NC	MA.8.2.01	and three-dimensional figures are changed.
		Translate among verbal, tabular, graphic, and
NC	MA.8.5.01.a	algebraic representations of functions.
		Find, identify, and interpret the slope (rate of
NC	MA.8.5.01.c	change) and intercepts of a linear relation.
		Interpret and compare properties of linear
NC	MA.8.5.01.d	functions from tables, graphs, or equations.
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State	Standards	Determine the effect on negligector case or
		Determine the effect on perimeter, area or
NO	NAA 0 40 0 04	volume when one or more dimensions of two-
NC	MA.9-12.2.01	and three-dimensional figures are changed.
NO		Translate among verbal, tabular, graphic, and
NC	MA.9-12.4.01.a	algebraic representations of functions.
		Find, identify, and interpret the slope (rate of
NC	MA.9-12.4.01.c	change) and intercepts of a linear relation.
	 Pushing the Env	l elope
	2003 Mathemat	
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State	Standards	
		Use formulas and algebraic expressions,
		including iterative and recursive forms, to model
NC	MA.9-12.1.02	and solve problems.
		Use formulas and algebraic expressions,
		including iterative and recursive forms, to model
NC	MA.9-12.1.02	and solve problems.
		Use formulas and algebraic expressions,
		including iterative and recursive forms, to model
NC	MA.9-12.1.02	and solve problems.
		Use formulas and algebraic expressions,
		including iterative and recursive forms, to model
NC	MA.9-12.1.02	and solve problems.
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		2003 Mathema	
		tandard Course o	f Study
North Carolina Math			
Grades 9-12 (Technic			
Activity/Lesson	State	Standards	
Types of Engines (pgs. 11-23)	NC	MA.9-12.1.01.c	The learner will apply various strategies to solve problems. Select and apply appropriate formulas.
Chemistry (pgs. 25-41)	NC	MA.9-12.1.01.c	The learner will apply various strategies to solve problems. Select and apply appropriate formulas.
Chemistry (pgs. 25-41)	NC	MA.9-12.2.03	Use the length, area, and volume of geometric figures to solve problems. Include arc length, area of sectors of circles; lateral area, surface area, and volume of three-dimensional figures; and perimeter, area, and volume of composite figures.
Physics and Math (pgs. 43-63)	NC	MA.9-12.1.01.c	The learner will apply various strategies to solve problems. Select and apply appropriate formulas. The learner will apply various strategies to solve
Rocket Activity (pgs. 69-75)	NC	MA.9-12.1.01.c	problems. Select and apply appropriate formulas.